

# Overview of Maritime Emission Reduction Incentives



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## Maritime Incentives

- Federal Incentives
- State Incentives
- Port Incentives
- Market Based Incentives

## Federal Incentives

- CMAQ
- Coast Guard's Quality Ship Program
- Tax Relief

## CMAQ

- Project Funding
  - Application to MPO
  - Submitted by MPO
  - Approved & Funded by FHWA
- Houston Demo Experience
  - Cargo Handling Equipment Demo Projects
  - FHWA Funding Issues Resolved
  - CMAQ Funding Limitations



## Coast Guard's Quality Shipping Program

- No Air Quality Component
- PHA Involvement
  - Create Air Quality Component
  - Coordinate with EPA/TNRCC
  - Establish Quality Ship Criteria
- Money



## State Incentives

- Carl Moyer Program
- Texas Emission Reduction Program
  - Wide Support from Stakeholders
  - Under Development
  - Based on Components of CMP
  - Program Metric is \$/ton/year
  - Project Caps

## Port Incentives

- Tariff Controls
  - Cleaner Ships = Lower Tariffs
  - Long Term
  - Ports Pickup Costs
  - Issues to Overcome
    - Requires Regional Participation
    - Certification of Clean Vessel
- Port Operational Efficiency Measures

## Market-Base Incentives

- Emissions Trading Options
  - ship to shore (trade between mobile and stationary sources)
  - shipper to shipper (trade between cargo logistics choices)
  - ship to ship (trade between vessels)

## Emission Trading Key Components

- Baseline Emission Standard
- Market Demand/Need
- Emission Reduction Technology
- Quantification

## Economic Players in Market Incentives?

- Stationary Source Industries
- Ports
- Vessel Owners/Operators
- Shippers

## Policy Options for Trading

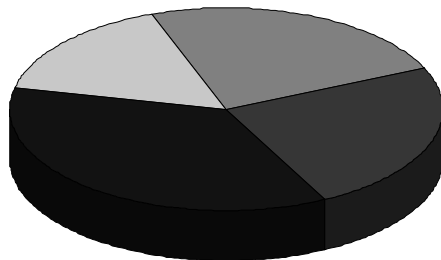
- Single Jurisdiction
  - (e.g., HGA, SouthCoast, SF Bay)
  - ships can qualify in each jurisdiction separately
- Multi Jurisdiction
  - (e.g., Gulf Coast, Westcoast, Northeast states NOx trading)
  - ships meet one regional standard for trading entry



Carnegie Mellon

## Token Chart

- What's on People's Minds



- I wish this would end
- What is he talking about??
- If he'd get done I could leave
- If I leave now, maybe I can catch an earlier flight...

## Industry, Policy Options

- What certifies a credit?
  - Monitoring costs plus control costs must be low enough to allow positive trade
  - Policymakers will need to approve these plans
  - Life of Credit
  - Offset for Trading

